

COMMENTARY

Breast Cancer Prevention and Control Programs in Malaysia

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Abstract

Breast cancer is the most common cancer in Malaysian females. The National Cancer Registry in 2003 and 2006 reported that the age standardized incidence of breast cancer was 46.2 and 39.3 per 100,000 populations, respectively. With the cumulative risk at 5.0; a woman in Malaysia had a 1 in 20 chance of developing breast cancer in her lifetime. The incidence of cancer in general, and for breast cancer specifically was highest in the Chinese, followed by Indians and Malays. Most of the patients with breast cancers presented at late stages (stage I: 15.45%, stage II: 46.9%, stage III: 22.2% and stage IV: 15.5%). The Healthy Lifestyles Campaign which started in the early nineties had created awareness on breast cancer and after a decade the effort was enhanced with the Breast Health Awareness program to promote breast self examination (BSE) to all women, to perform annual clinical breast examination (CBE) on women above 40 and mammogram on women above 50. The National Health Morbidity Survey in 2006 showed that the prevalence rate of 70.35% by any of three methods of breast screening; 57.1% by BSE, 51.8% by CBE and 7.6% by mammogram. The current screening policy for breast cancer focuses on CBE whereby all women at the age of 20 years and above must undergo breast examination by trained health care providers every 3 years for age between 20-39 years, and annually for age 40 and above. Several breast cancer preventive programs had been developed by various ministries in Malaysia; among which are the RM50 subsidy for mammogram by the Ministry of Women, Family and Community Development and the SIPPS program (a call-recall system for women to do PAP smear and CBE) by the Ministry of Health. Measures to increase uptake of breast cancer screening and factors as to why women with breast cancer present late should be studied to assist in more development of policy on the prevention of breast cancer in Malaysia.

Keywords: Breast cancer - screening - prevention - Malaysia

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Introduction

Breast cancer is the most common cancer and the most common cause of death from cancer in women worldwide. The incidence rate of breast cancer is highest in North America with the age standardized rates of 99.4 per 100,000 population, followed by countries in the Eastern Europe, South America, Southern Africa, and western Asia with moderate incidence rates, while the lowest incidence rates are reported in most African countries (WHO, 2010). Globally, breast cancer incidence is rising but mortality is declining in high income countries due to earlier detection and more effective therapy. Incidence and mortality rates tend to be higher in high-resource countries compared to low-resource countries (Smith, 2006). However, in low-resource countries fatality rates tend to be higher (Parkin et al., 2005).

According to the World Health Organization (WHO) 70% of cancer deaths in 2005 occurred in low- and middle-income countries. In addition to that, the rising incidence in developing countries is worsened by the fact that majority of the cases present in the late stage ((WHO, 2010). Rising breast cancer incidence in developing

countries is due to urbanization, ageing population and lifestyle changes.

Many efforts had been implemented to improve breast health in Malaysia. However the situation is still worrying whereby the number of advanced breast cancer although reduced from previous years, it is still higher than its neighboring countries. The aim of this paper is to look into the breast cancer screening policies in Malaysia, in particular the breast screening policies and to discuss the breast cancer screening activities in Malaysia.

Breast Cancer in Malaysia

Breast cancer is the commonest cancer among Malaysian women in all ethnic groups (Lim and Halimah, 2008). A woman in Malaysia has 1 in 20 chance of getting a breast cancer in her lifetime. According to the National Cancer Registry, the Age Standardized Rate (ASR) of female breast cancer in Malaysia is 47.4 per 100,000 populations in 2003 to 2005 and this dropped to 39.3 in 2006 (Zainal and Nor Saleha, 2006). However, the ASR is higher than those in other Asian countries (Beijing, 24.6, Hiroshima 36.6, Chennai 23.9 and Seoul 20.8), (Lim and

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Halimah, 2008). There are variations in the incidence rates of breast cancer among the three main ethnic groups in Malaysia. Amongst the Chinese, the ASR is highest at 59.9 per 100,000 population, for the Indians, the ASR is 54.2 per 100,000 and it is lowest in the Malays at 34.9 per 100,000 population. Breast cancer accounted for 31.3% of the total number of the new cases in women (Lim and Halimah, 2008). These differences may be attributed to the differences in lifestyle, diet and reproductive behavior namely those that relates to childbearing and breastfeeding practices.

According to the Third National Cancer Registry Report 2008, the peak incidence for breast cancer is between the ages of 50 to 60 years of age except for Indians where the peak is after the age of 60 years old.

Generally, Malaysian women presents at later stages of breast cancer compared to other counterparts in the developing countries whereby 30-40% present at stage 3 to stage 4 involving mostly the Malays resulting poorer outcome compared to other ethnicities (Yip and Ibrahim, 2006). They reported the commonest presenting symptom was a lump in the breast (90%) and the mean size of the lump is 4.2cm.

International Breast Cancer Screening Policy

There have been ongoing discussions and recommendations made regarding breast cancer screening strategies in different countries around the world. These strategies or policies differ in terms of the methods chosen or the way they are implemented based on the current evidences on screening practices and availability of resources. Among the characteristics of breast cancer screening programs surveyed in the International Cancer Screening Network (ICSN, 2002) in the participating countries are the program type (national, state, provincial or regional), detection methods used (that is either using screening mammography, clinical breast examination or breast self examination or combination of any of those methods), the age groups covered by mammography and the screening intervals adopted in each country (Shapiro, 1998; ICSN, 2002). However, the ICSN is participated only by countries with population based cancer screening programs and these are mainly the developed countries.

As for the lower and middle income countries, the Breast Health Global Initiative (BHGI) has developed some evidence based recommendations for countries with limited resources whereby the method of breast screening for early detections depends on the available resources. The availability of resources were divided into four levels namely basic, limited, enhanced and maximal (Smith, 2006). It was also stressed that women should receive full support to seek, have access to health care and that all women should be promoted regarding breast health awareness. The Early Detection and Access to Care Panel recommended that the method of early screening for breast cancer can be enhanced once the resource is available from as basic as promoting breast health awareness to training of health care staff on clinical breast examination, opportunistic CBE screening, trials of organized screenings using CBE or breast self examination

and feasibility studies of population based mammographic screenings (Smith, 2006)

Breast Cancer Screening Policy in Malaysia

In the planning for breast cancer prevention programs, the Ministry of Health is approaching the issue by looking into both primary and secondary prevention of breast cancer. The primary prevention includes increasing breast health awareness and promoting healthy lifestyle and lifestyle modification while secondary prevention includes early diagnosis and early treatment to prevent from complications (Figure 1).

In terms of breast cancer screening policies, currently Malaysia is practicing opportunistic screening for breast cancer. There are three main activities for breast cancer screening in Malaysia. They are Breast Self Awareness (BSA) or previously known as Breast Self Examination (BSE), Clinical Breast Examination (CBE) and mammography screening. The Ministry of Health has been promoting Breast Self Examination (BSE) and annual breast examination by trained health workers as part of breast cancer awareness campaign since 1995.

According to the Third National Health Morbidity Survey (NHMS, 2006), the prevalence rate for breast examination in Malaysia was 70.35% where the highest was for BSE (57.14%), followed by CBE (51.77%) while for mammography it was 7.57%. The prevalence rate for breast examination was higher for the age group between 30-34 years old (82.04%) (9). This still shows that breast screening facilities in Malaysia is still underutilized, especially by the target groups although it has improved compared to the figures in the Second NHMS in 1996.

Screening targets women attending the women's wellness clinics, maternal and child health clinics and lately also offered to women attending the outpatient clinics in the Ministry of Health (MOH) facilities. Clinical breast examination were offered to those women who came for PAP smear screening while breast self awareness (BSA) are being taught at the time of contact for some women. In Malaysia, currently health care workers in health clinics are no longer routinely teaching women on breast self examination but are available if requested by the client and the women would be made aware of its limitations. This is due to evidences that showed that BSE could not be recommended as a screening tool for breast cancer based on 3 large trials in the United Kingdom, Shanghai and Russia (Kosters, 2003). Instead they are encouraged to teach women on breast self awareness whenever they are in contact with the women. The Ministry of Health (MOH), Malaysia recommends three simple steps that are easy for public health education which are Look for any breast changes, Feel for any lumps and Response by reporting any changes at the nearest clinic as part of the Breast Self Awareness (BSA) activities.

The current screening policy recommended by the Ministry of Health on breast cancer includes encouraging breast self examination in all women as breast awareness promotion program and also focuses on clinical breast examination whereby for all women above the age of 20 years up to 39 years, they are encouraged to

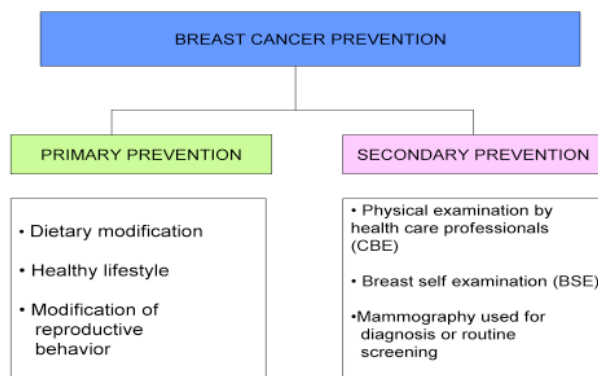


Figure 1. Breast Cancer Prevention Programs (Source: Breast Cancer Prevention and Control, Family Health Development Division, 2007)

undergo clinical breast examination by trained health care providers every three years while for those above the age of 40 years and those with high risks of getting breast cancer regardless of the age should have annual clinical breast examination (KKM, 2002). In addition to that, women identified as high risk will be appropriately managed according to age and other factors, based on the existing Clinical Practice Guidelines on the Management of Breast Cancer (MOH, 2006).

Mammogram is another radiological or imaging modality for early detection of breast cancer. In Malaysia, mammography is being indicated to women in the 'high risk' group as indicated in the Clinical Practice Guidelines (CPG). These are women with a history of breast atypia on previous breast biopsy, history of cancer in one breast and/or ovarian cancer and also women with a family history of breast cancer in one or more of first or second degree relatives (mother and sisters) before the age of 50 years.

Mammography may also be considered for those under the age of forty at the discretion of the doctor and if the patient wishes to do so (MOH, 2006). Mammogram is done free of charge in government facilities for those who are 'eligible' ('high risk'). Mammography screenings are also available in the private centers for any women including those who are not high risks and may cost between RM 100 to RM 120.

To further promote greater awareness among women to undergo mammogram screening for early detection of breast cancer, the Ministry Of Women, Family and Community Development (MWFC) in the year 2007 provide a RM50 subsidy for every mammogram done in private clinics and hospitals registered with the National Population and Family Development Board Malaysia (NPFDB) or better known as Lembaga Penduduk dan Pembangunan Keluarga Negara Malaysia (LPPKN). However this service is only available to women who met the eligibility criteria which includes women with high risk of breast cancer with monthly household income below RM 5,000. So far, 18,000 women were screened through this program, whereby 63 women (0.36 percent) were positive for breast cancer, while 1,543 women (8.9 percent) went for further investigation for breast cancer (13).

There are also efforts to combine screening programs for the two most common cancers in Malaysia among

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women. These are breast cancers followed by cervical cancers where the age standardized incidence rates (ASR) are 47.3 and 16.1 per 100,000 populations respectively (4). Currently the government health clinics in Malaysia are offering cancer screenings for these two cancers to women who utilized these health facilities with a highly subsidized health services at a very low cost i.e RM 1. There are two districts chosen by the MOH which are the Klang (urban) and the Mersing (rural) districts for a pilot study known as SIPPS (Sistem Informasi Program Pap Smear). The SIPPS programme is a call-recall pilot study for population based PAP smear screening. Women who attended will have their CBE done at the same time as their pap smears were taken. This will benefit more women in terms of early detection of the two common cancers. However the cost effectiveness of this strategy as a population based screening program has yet to be ascertained as this study is still ongoing.

Despite health education efforts to educate women on breast health awareness including the awareness on the different screening modalities available, the incidence of breast cancer and presentation at an advanced stage is still a problem in Malaysia. This has led the MOH into revising Malaysia's policy on breast cancer and also into looking at the possibility of expanding mammogram to a wider group of women. However, population-based screening mammography is not recommended in Malaysia due to limited resources as well as the lack of local statistics on mammography and breast cancer.

Delay in Diagnosis Of Breast Cancer

There are two types of delay in breast cancer that are patient delay and provider delay (Karla, 2009). The former is usually defined as the period between discovery of symptom by the patient to the initial contact with a physician and the latter is from the initial contact of the physician and the beginning of definitive treatment. Total delay in breast cancer presentation is usually defined as more than three months from symptom discovery by the patient and the beginning of medical treatment.

Previous studies have shown that Malaysian women presents at an advanced stage at diagnosis of breast cancer with a larger tumour size as compared to other countries in the western region. In a study by Hisham and Yip (2003), involving two hospitals in an urban area namely Hospital Kuala Lumpur and University Malaya Medical Centre (UMMC), there were 50% to 60% and 30% to 40% of women respectively, whom presented at late stage at diagnosis (stage 3 and stage 4) whereby the median duration of symptoms before presenting was 3 months. The majority was of Malay ethnicity and the average tumour size was reported to be 5.4cm and 4.2cm respectively.

The delay in presentation of breast cancer can be attributed to many reasons where mostly they are related to the socio-cultural issues. According to Benjamin et al. (2007), in Sabah, presentation at advanced disease were associated with being a non-Chinese race, patients from rural area, those with income of less than 1000 RM per month and the non-educated. It was also reported that the majority of those who defaulted treatment opted for

traditional or alternative treatments (Hisham and Yip, 2004; Benjamin et al., 2007).

Among other reasons documented in a study for the late presentation of breast cancer by Nur Aishah Taib et al. (2007) was having fatalistic view of cancer and also opting alternative treatment for these patients are fear of surgery, influenced by their friends, thought that alternative treatment works, previous bad experience in hospital, financial problems, was afraid that she cannot work after the mastectomy, no time, have young children, prayer was sufficient, thought it was not a cancer and was shy to see the doctor.

In Malaysia accessibility to health care may not be the main factor of delayed presentation of breast cancer. A recent study was conducted by the Department of Social and Preventive Medicine, University Malaya for the Community Residency Program (CRP) of medical students in 2009 which reported that for the state of Pahang, the accessibility to health facilities was not a problem to the majority of respondents surveyed. They found that 97.7% of the respondents live within 20km radius from the nearest hospital or within 5km radius from the nearest clinic or both and this also was true of the aborigines (CRP Report, 2009). This suggests that geographical accessibility may not be the main factor for delay in seeking care and treatment. However, the possibility of financial or cultural accessibility as a more important factor is still uncertain as further studies is needed in this area.

Conclusion

Breast cancer still remains as a problem in Malaysia. More so due to the advanced stage presentation of the disease. This then cause an enormous financial burden to the government as the costs to treat these will escalates the overall health care costs.

The success of a screening program depends on the type of strategies and policies made that are tailored to the local needs. More importantly is to ensure that the screening program is sustainable and accessible to the target groups and that the downstream activities are available for those who need them.

Early detection and timely intervention would reduce the disease burden and improve the quality of life of the patients and their families. More research is needed to understand the factors for the late presentation of breast cancers in Malaysia and the differences among the different ethnic groups. This should include both the patient delay and provider delay factors.

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